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- (i) Does not meet the applicable content requirements of §3809.401;
- (ii) Proposes operations that are in an area segregated or withdrawn from the operation of the mining laws, unless the requirements of §3809.100 are met: or
- (iii) Proposes operations that would result in unnecessary or undue degradation of public lands.

[65 FR 70112, Nov. 21, 2000, as amended at 66 FR 54860, Oct. 30, 2001]

§ 3809.412 When may I operate under a plan of operations?

You must not begin operations until BLM approves your plan of operations and you provide the financial guarantee required under § 3809.551.

§ 3809.415 How do I prevent unnecessary or undue degradation while conducting operations on public lands?

You prevent unnecessary or undue degradation while conducting operations on public lands by—

- (a) Complying with §3809.420, as applicable; the terms and conditions of your notice or approved plan of operations; and other Federal and State laws related to environmental protection and protection of cultural resources:
- (b) Assuring that your operations are "reasonably incident" to prospecting, mining, or processing operations and uses as defined in §3715.0-5 of this title; and
- (c) Attaining the stated level of protection or reclamation required by specific laws in areas such as the California Desert Conservation Area, Wild and Scenic Rivers, BLM-administered portions of the National Wilderness System, and BLM-administered National Monuments and National Conservation Areas.

[65 FR 70112, Nov. 21, 2000, as amended at 66 FR 54861, Oct. 30, 2001]

§ 3809.420 What performance standards apply to my notice or plan of operations?

The following performance standards apply to your notice or plan of operations:

(a) General performance standards—(1) Technology and practices. You must use

equipment, devices, and practices that will meet the performance standards of this subpart.

- (2) Sequence of operations. You must avoid unnecessary impacts and facilitate reclamation by following a reasonable and customary mineral exploration, development, mining and reclamation sequence.
- (3) Land-use plans. Consistent with the mining laws, your operations and post-mining land use must comply with the applicable BLM land-use plans and activity plans, and with coastal zone management plans under 16 U.S.C. 1451, as appropriate.
- (4) *Mitigation*. You must take mitigation measures specified by BLM to protect public lands.
- (5) Concurrent reclamation. You must initiate and complete reclamation at the earliest economically and technically feasible time on those portions of the disturbed area that you will not disturb further.
- (6) Compliance with other laws. You must conduct all operations in a manner that complies with all pertinent Federal and state laws.
- Specific standards—(1) Access routes. Access routes shall be planned for only the minimum width needed for operations and shall follow natural contours, where practicable to minimize cut and fill. When the construction of access routes involves slopes that require cuts on the inside edge in excess of 3 feet, the operator may be required to consult with the authorized officer concerning the most appropriate location of the access route prior to commencing operations. An operator is entitled to access to his operations consistent with provisions of the mining laws. Where a notice or a plan of operations is required, it shall specify the location of access routes for operations and other conditions necessary to prevent unnecessary or undue degradation. The authorized officer may require the operator to use existing roads to minimize the number of access routes, and, if practicable, to construct access roads within a designated transportation or utility corridor. When commercial hauling is involved and the use of an existing road is required, the authorized officer may

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require the operator to make appropriate arrangements for use and maintenance.

- (2) Mining wastes. All tailings, dumps, deleterious materials or substances, and other waste produced by the operations shall be disposed of so as to prevent unnecessary or undue degradation and in accordance with applicable Federal and state Laws.
- (3) Reclamation. (i) At the earliest feasible time, the operator shall reclaim the area disturbed, except to the extent necessary to preserve evidence of mineralization, by taking reasonable measures to prevent or control on-site and off-site damage of the Federal lands.
- (ii) Reclamation shall include, but shall not be limited to:
- (A) Saving of topsoil for final application after reshaping of disturbed areas have been completed;
- (B) Measures to control erosion, landslides, and water runoff;
- (C) Measures to isolate, remove, or control toxic materials;
- (D) Reshaping the area disturbed, application of the topsoil, and revegetation of disturbed areas, where reasonably practicable; and
- (É) Rehabilitation of fisheries and wildlife habitat.
- (iii) When reclamation of the disturbed area has been completed, except to the extent necessary to preserve evidence of mineralization, the authorized officer shall be notified so that an inspection of the area can be made.
- (4) Air quality. All operators shall comply with applicable Federal and state air quality standards, including the Clean Air Act (42 U.S.C. 1857 et seq.).
- (5) Water quality. All operators shall comply with applicable Federal and state water quality standards, including the Federal Water Pollution Control Act, as amended (30 U.S.C. 1151 et seq.).
- (6) Solid wastes. All operators shall comply with applicable Federal and state standards for the disposal and treatment of solid wastes, including regulations issued pursuant to the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.). All garbage, refuse or waste shall either be removed from the affected lands or dis-

posed of or treated to minimize, so far as is practicable, its impact on the lands.

- (7) Fisheries, wildlife and plant habitat. The operator shall take such action as may be needed to prevent adverse impacts to threatened or endangered species, and their habitat which may be affected by operations.
- (8) Cultural and paleontological resources. (i) Operators shall not knowingly disturb, alter, injure, or destroy any scientifically important paleontological remains or any historical or archaeological site, structure, building or object on Federal lands.
- (ii) Operators shall immediately bring to the attention of the authorized officer any cultural and/or paleontological resources that might be altered or destroyed on Federal lands by his/her operations, and shall leave such discovery intact until told to proceed by the authorized officer. The authorized officer shall evaluate the discoveries brought to his/her attention, take action to protect or remove the resource, and allow operations to proceed within 10 working days after notification to the authorized officer of such discovery.
- (iii) The Federal Government shall have the responsibility and bear the cost of investigations and salvage of cultural and paleontology values discovered after a plan of operations has been approved, or where a plan is not involved.
- (9) Protection of survey monuments. To the extent practicable, all operators shall protect all survey monuments, witness corners, reference monuments, bearing trees and line trees against unnecessary or undue destruction, obliteration or damage. If, in the course of operations, any monuments, corners, or accessories are destroyed, obliterated, or damaged by such operations, the operator shall immediately report the matter to the authorized officer. The authorized officer shall prescribe, in writing, the requirements for the restoration or reestablishment monuments, corners, bearing and line trees.
- (10) Fire. The operator shall comply with all applicable Federal and state fire laws and regulations, and shall

take all reasonable measures to prevent and suppress fires in the area of operations.

- (11) Acid-forming, toxic, or other deleterious materials. You must incorporate identification, handling, and placement of potentially acid-forming, toxic or other deleterious materials into your operations, facility design, reclamation, and environmental monitoring programs to minimize the formation and impacts of acidic, alkaline, metalbearing, or other deleterious leachate, including the following:
- (i) You must handle, place, or treat potentially acid-forming, toxic, or other deleterious materials in a manner that minimizes the likelihood of acid formation and toxic and other deleterious leachate generation (source control);
- (ii) If you cannot prevent the formation of acid, toxic, or other deleterious drainage, you must minimize uncontrolled migration of leachate; and
- (iii) You must capture and treat acid drainage, or other undesirable effluent, to the applicable standard if source controls and migration controls do not prove effective. You are responsible for any costs associated with water treatment or facility maintenance after project closure. Long-term, or postmining, effluent capture and treatment are not acceptable substitutes for source and migration control, and you may rely on them only after all reasonable source and migration control methods have been employed.
- (12) Leaching operations and impoundments. (i) You must design, construct, and operate all leach pads, tailings impoundments, ponds, and solution-holding facilities according to standard engineering practices to achieve and maintain stability and facilitate reclamation.
- (ii) You must construct a low-permeability liner or containment system that will minimize the release of leaching solutions to the environment. You must monitor to detect potential releases of contaminants from heaps, process ponds, tailings impoundments, and other structures and remediate environmental impacts if leakage occurs.
- (iii) You must design, construct, and operate cyanide or other leaching facilities and impoundments to contain

- precipitation from the local 100-year, 24-hour storm event in addition to the maximum process solution inventory. Your design must also include allowances for snowmelt events and draindown from heaps during power outages in the design.
- (iv) You must construct a secondary containment system around vats, tanks, or recovery circuits adequate to prevent the release of toxic solutions to the environment in the event of primary containment failure.
- (v) You must exclude access by the public, wildlife, or livestock to solution containment and transfer structures that contain lethal levels of cyanide or other solutions.
- (vi) During closure and at final reclamation, you must detoxify leaching solutions and heaps and manage tailings or other process waste to minimize impacts to the environment from contact with toxic materials or leachate. Acceptable practices to detoxify solutions and materials include natural degradation, rinsing, chemical treatment, or equally successful alternative methods. Upon completion of reclamation, all materials and discharges must meet applicable standards.
- (vii) In cases of temporary or seasonal closure, you must provide adequate maintenance, monitoring, security, and financial guarantee, and BLM may require you to detoxify process solutions.
- (13) Maintenance and public safety. During all operations, the operator shall maintain his or her structures, equipment, and other facilities in a safe and orderly manner. Hazardous sites or conditions resulting from operations shall be marked by signs, fenced, or otherwise identified to alert the public in accordance with applicable Federal and state laws and regulations.

[66 FR 54861, Oct. 30, 2001]

§ 3809.421 Enforcement of performance standards.

Failure of the operator to prevent unnecessary or undue degradation or to complete reclamation to the standards described in this subpart may cause the operator to be subject to enforcement